



**STATE OF MAINE  
DRINKING WATER PROGRAM  
DEPARTMENT OF HUMAN SERVICES  
BUREAU OF HEALTH  
DIVISION OF HEALTH ENGINEERING  
11 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0011**

Revision Date: October 20, 2003

**POLICY FOR ISSUANCE AND REMOVAL OF BOIL WATER ORDERS**

Pursuant to 22 M.R.S.A., Section 2614, a boil water order may be issued when in the judgment of the commissioner (DWP), a threat to the public may exist from the presence of pathogenic microorganisms in a public water system.

The following policy was developed by the DWP to administer this statutory requirement. If you have questions on this policy or have need to issue a boil water order please contact a member of the Field Services Section of the DWP at (207) 287-2070. To contact the DWP outside of normal business hours call the emergency phone at (207) 557-4214.

**I. DEFICIENCIES REQUIRING A BOIL WATER ORDER**

1. Acute bacteria violation (fecal and/or E. Coli present - issued after recheck samples are taken) or repeated nonacute bacteria violations.
2. Turbidity MCL violation (turbidity above 5.49 NTU)
3. Unchlorinated surface water entering system from an approved source.
4. Unfiltered surface water entering system from an emergency back-up or other unapproved sources.
5. System without water or with negative pressure zones (see Appendix A).
6. No working chlorination on a system which is required to submit monthly chlorine residual reports to the DWP.

7. Dead animals (mice, rats, birds, etc.) observed in an unchlorinated groundwater source.
8. In lieu of routine sampling where chronic contamination has occurred.
9. Equipment failure resulting in inadequate disinfection and/or filtration of a surface water supply not immediately repairable.

## **II. PROVIDING PUBLIC NOTIFICATION**

When a Public Water System is issued a boil water order the system shall appropriately notify consumers within 24 hours of its issuance. Notification shall be made with the attached Boil Water Order notice or other notices generated by the DWP. Modifications to the notice must be approved by the DWP prior to distribution. Notification may be made through radio, television or a daily newspaper for community systems where hand delivery is impractical. In some instances the federal Environmental Protection Agency (EPA) may require additional public notification.

## **III. REMOVING A BOIL WATER ORDER**

### **1. CORRECTION OF DEFICIENCY**

A boil water order can be removed from a public water system when correction of deficiency and satisfactory sampling is completed.

<u>Deficiency</u>	<u>Corrective Action</u>
1. Acute bacterial violation.	Establish or reestablish disinfection and maintain residuals.
2. Turbidity MCL Violation.	Turbidity drops to acceptable levels throughout system.
3. Unchlorinated surface water entering the system.	Reestablish disinfection.
4. Unfiltered surface water from an emergency source.	Suspend use of emergency source.
5. System without water or negative pressure.	Reestablish service and maintain positive pressure.
6. No chlorination on system with repeated nonacute bacteria violations.	Reestablish chlorination.
7. Dead animals in groundwater source.	Removal of remains and disinfection of the system.
8. Order used in lieu of sampling.	Reestablish sampling.
9. Equipment failure.	Repair or replacement of equipment.

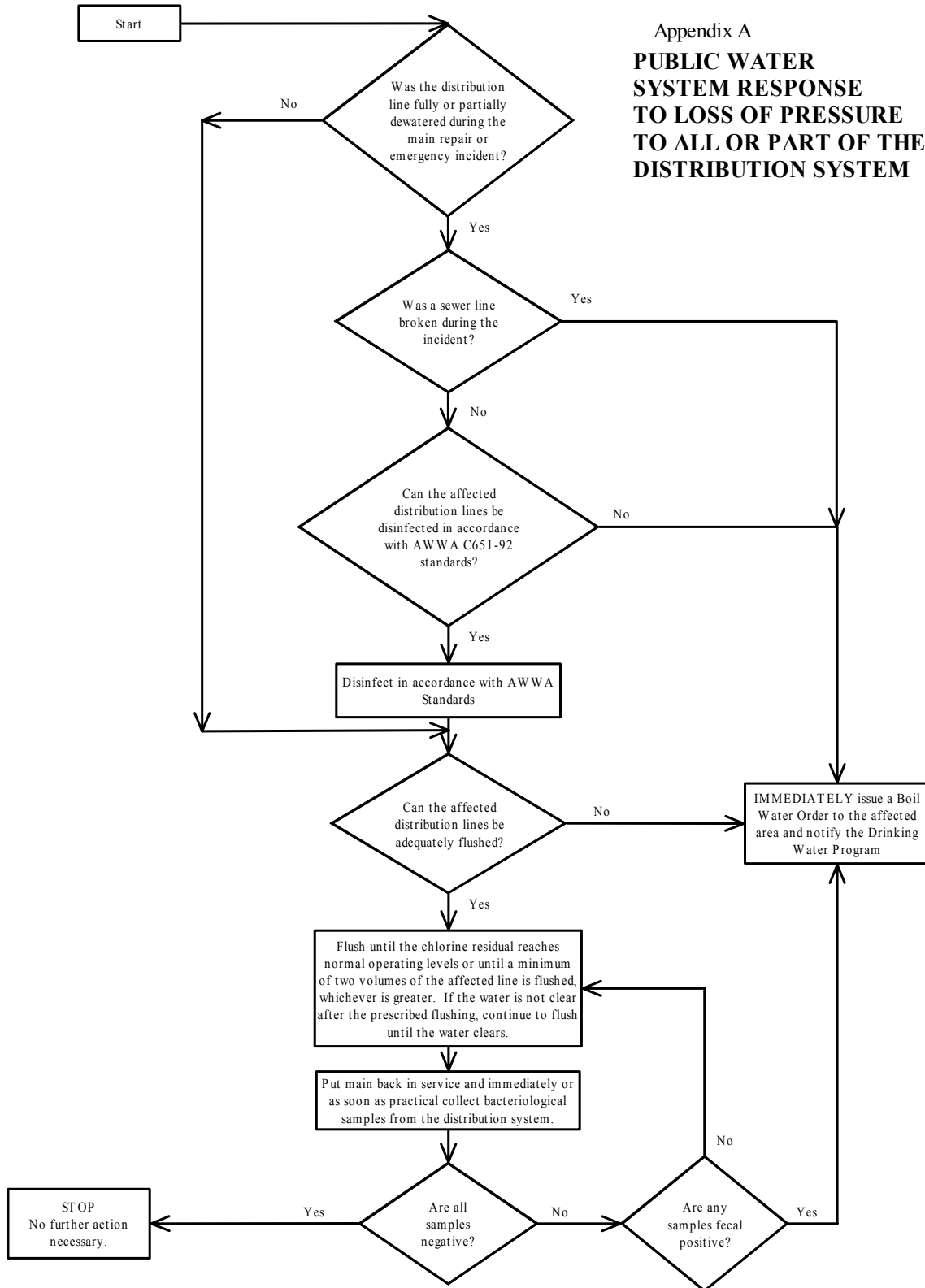
## 2. BOIL WATER ORDER SAMPLES

The boil water order samples listed below must be taken on the same day, at separate locations, when possible. The samples taken must be representative of the distribution system affected by the Boil Water Order and must all be negative for total coliform bacteria in order to remove the Boil Water Order.

The required number of samples taken to lift a “Boil Order” shall correspond to the population requirement of the Total Coliform Rule (TCR) but in no case shall be less than three. Population determination for the Boil Water Order shall be based upon the affected area of the Boil Water Order.

All community systems serving more than 500 people may take their own samples. Community systems serving less than 500 people and all Non-Community systems must have their samples collected by the DWP Field Staff unless approved otherwise.

Appendix A  
**PUBLIC WATER  
SYSTEM RESPONSE  
TO LOSS OF PRESSURE  
TO ALL OR PART OF THE  
DISTRIBUTION SYSTEM**



## **AWWA Standard for Disinfecting Water Mains**

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### **SECTION 10: DISINFECTION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS**

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The following procedures apply primarily when existing mains are wholly or partially dewatered. After the appropriate procedures have been completed, the existing main may be returned to service prior to completion of bacteriological testing in order to minimize the time customers are out of water. Leaks or breaks that are repaired with clamping devices while the mains remain full of pressurized water presents little danger of contamination and require no disinfection.

#### **Sec. 10.1 Trench Treatment**

When an existing main is opened, either by accident or by design, the excavation will likely be wet and may be badly contaminated from nearby sewers. Liberal quantities of hypochlorite applied to open trench areas will lessen the danger from such pollution. Tablets have the advantage in such a situation because they dissolve slowly and continue to release hypochlorite as water is pumped from the excavation.

#### **Sec. 10.2 Swabbing With Hypochlorite Solution**

The interior of all pipe and fittings (particularly couplings and sleeves) used in making the repair shall be swabbed or sprayed with a 1 percent hypochlorite solution before they are installed.

#### **Sec. 10.3 Flushing**

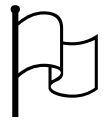
Thorough flushing is the most practical means of removing contamination introduced during repairs. If valve and hydrant locations permit, flushing toward the work location from both directions is recommended. Flushing shall be started as soon as the repairs are completed and shall be continued until discolored water is eliminated.

#### **Sec. 10.4 Slug Chlorination**

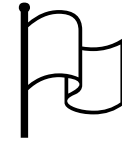
When practical, in addition to the procedures above, the section of main in which the break is located shall be isolated, all service connections shut off, and the section flushed and chlorinated as described in Sec. 5.3, except that the dose may be increased to as much as 300 mg/l and the contact time reduced to as little as 15 min. After chlorination, flushing shall be resumed and continued until discolored water is eliminated, and the water is free of noticeable chlorine odor.

#### **Sec. 10.5 Sampling**

Bacteriological samples shall be taken after repairs are completed to provide a record for determining the procedure's effectiveness. If the direction of flow is unknown, then samples shall be taken on each side of the main break. If positive bacteriological samples are recorded, then the situation shall be evaluated by the purchaser (or purchaser's representative) who can determine corrective action, and daily sampling shall be continued until two consecutive negative samples are recorded.



# Boil Water Order



Due to the possibility of unsafe water, \_\_\_\_\_  
consumers are directed to **Boil All Water** for at least 5 minutes before drinking,  
making ice cubes, washing foods, brushing teeth or in any other activity  
involving consumption of water. This Order shall remain in effect until further  
notice!

Questions regarding this notice should be directed to:

\_\_\_\_\_ at

\_\_\_\_\_

or to the

State of Maine Drinking Water Program at  
287-2070 during normal business hours.

**TO BE POSTED IMMEDIATELY.**